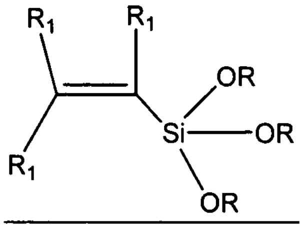
1. (currently amended): A process which comprises copolymerizing ethylene with a vinylsilane in the presence of a Ziegler-Natta catalyst and cocatalyst wherein the vinylsilane has the general structure:



in which each R_1 is independently selected from the group consisting of hydrogen, halogen, and $C_1 - C_{20}$ hydrocarbyl and each R is independently a $C_1 - C_{20}$ hydrocarbyl; the catalyst comprises the reaction product of a Group 4-6 halogen-containing transition metal compound with a mixture of an organomagnesium compound and a silicon-containing compound; and the cocatalyst is selected from the group consisting of trialkyl aluminums, dialkyl aluminum halides and alkyl aluminum dihalides.

2. (original): The process of claim **1** wherein the mixture of the organomagnesium compound and the silicon-containing compound has been prereacted with a mixture of an aluminum compound and an alcohol.

3. (original): The process of claim **2** wherein the alcohol is a mixture of a straight chain alcohol with a branched or cyclic alcohol.

4. (original): The process of claim **1** wherein the silicon-containing compound is a polymethylhydrosiloxane.

5. (original): The process of claim **1** further comprising the copolymerization of ethylene and the vinylsilane with a third olefin wherein the third olefin is selected from the group consisting of propylene, 1-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene and 1-octene and mixtures thereof.

6. (canceled).

7. (currently amended): The process of claim **~~6~~** **1** wherein R_1 is hydrogen and each R is independently a $C_1 - C_6$ hydrocarbyl.

8. (original): The process of claim **1** wherein the polymerization is performed at a temperature within the range of about 30°C to about 100°C.

9. (original): The process of claim **1** wherein the polymerization is performed at a pressure within the range of about 0.3 MPa to about 25 MPa.

10. (original): A slurry polymerization process of claim **1**.

11. (original): A gas-phase polymerization process of claim **1**.

12. (original): The process of claim **1** wherein the vinylsilane is used in an amount from about 100 micromoles to about 3,000 micromoles per gram of polyolefin produced.